REMARKS

In the aforementioned Office action, claims 1 and 4 were rejected under 35 U.S.C. §102(b) as allegedly anticipated by Warren, Jr. et al. (US 4,650,416), and claims 1-6 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Warren in view of Huniu et al. (US 4,453,914). By this amendment, the claims have been further amended to distinguish more clearly over the cited art and are submitted for reconsideration and re-examination in view of the following remarks.

As a preliminary matter, Applicant notes that the prior Office action (dated January 29, 2003) contained a rejection under 35 U.S.C. §112, second paragraph, and an objection to the drawings under 37 C.F.R. §1.83(a). Since these issues were not mentioned in the current Office action, Applicant assumes that they were satisfactorily resolved by Applicant's response dated June 10, 2003, and that the rejection and objections have been withdrawn. More specifically with regard to the drawing objections, Applicant proposed a number of minor changes to the drawings, and respectfully requests the Examiner's approval of these changes prior to submission of replacement drawings in response to the Notice of Draftsperson's Patent Drawing Review (PTO-948), which notes a number of drawing informalities.

As mentioned above, claims 1 and 4 were rejected as allegedly anticipated by the Warren patent. In support of the rejection, the Examiner attached a copy of Fig. 3 of the Warren patent and appended the following comment:

> "Figure 3 illustrates an array of injector rings for a gain generator combustor having within the injector coolant channels (32) where water flows for cooling, diluent channels (34) where He flows, oxidizer channels (36) where NF_3 flows and fuel channels (38) where D_2 flows, as described in the abstract and column 8 lines 3-38."

Claim 1, as previously amended, recites that "the gain generator is formed from a plurality of thin platelets of metal, each of which defines a cross-sectional slice of the gain generator, including injector blades, and in which the internal passages for flow of cooling water and gas are formed by chemical etching of each platelet separately ...."

The Examiner's comment points out only that the array of injector rings contains coolant channels, diluent channels, oxidizer channels and fuel channels. The comment does not identify where in the Warren patent one can find a description or suggestion of the present invention's use of a plurality of thin platelets to define the internal passages of the gain generator. The cylindrical gain generator disclosed by Warren is formed as an array of rings (14), each of which contains annular passages and channels, as referred to by the Examiner. There is no discussion in the patent concerning how these passages are formed in each ring. The abstract simply refers to "a plurality of primary rings having fuel, oxidizer and diluent orifices therein." Similarly, the referenced text in column 8 describes the geometry of the various passages and orifices but makes no suggestion as to how they might be formed. Presumably, one or more of the complex fabrication processes mentioned in paragraph [0003] of Applicant's specification might have been used. In any event, there is no disclosure or suggestion in Warren that the passages and orifices are formed using platelet technology.

Another possible interpretation of the rejection based on Warren is that the Examiner intended to imply, without specifically so arguing, that the array of rings (14) of Warren are structurally equivalent to the thin platelets of present invention. The rings (14) are stacked together to form a combustor for a cylindrical laser, but such an arrangement in no way suggests the use of platelet technology to fabricate a chemical

laser gain generator. First, the rings shown in Fig. 3 of Warren are not thin platelets of metal, each of which defines a cross-sectional slice of the gain generator. The Warren rings are, by no stretch of the imagination, flat, uniformly thin platelets, and individually they do not define a cross-sectional slice of the gain generator.

Yet another possible interpretation of the rejection based on Warren is that the Examiner intended to imply, without specifically so arguing, that the cylindrical structure disclosed by Warren is fabricated using platelet slices corresponding to the illustration of Fig. 3. There is, however, no support in the Warren patent for this implication. The fact that Fig. 3 is itself a cross-sectional view is no way supportive of any argument to the effect that Warren teaches fabrication of a combustor using platelet technology. Cross-sectional views are, of course, widely used to illustrate features of mechanical structures that would otherwise be hidden from view if only external views were used. However, unless such a view is specifically described as pertaining to a physical cross-sectional slice of that structure, one cannot reasonably infer that the structure is fabricated using slices of material corresponding to the cross-sectional view. Such a description of Fig. 3 is lacking in the Warren patent. In fact, as mentioned earlier, no specific method of fabrication of the Warren structure is disclosed or suggested in the patent.

Accordingly, the rejection of claim 1 as anticipated by Warren is believed to be without a proper basis, and reconsideration and withdrawal of the rejection are respectfully requested. The same comments apply to the rejection of claim 4 as unpatentable over Warren. Claims 1 and 4 have been further amended to emphasize the nature of the thin platelets used in the present invention and to distinguish them

from the rings (14) in Warren. In particular, the platelets are uniformly thin and flat, unlike the rings of Warren. Also unlike the rings of Warren, the platelets in the present invention define cross-sectional elements of the internal passages through the structure that the platelets collectively form.

Claims 1-6 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Warren in view Huniu et al.

Regarding claims 1 and 4, the Examiner appended the same comment that was used in making the Section 102 rejection. For the same reasons that claims 1 and 4 are believed to be not anticipated by Warren, the claims are also believed to be not rendered obvious by Warren. As discussed above, the rings (14) of Warren are in no way equivalent to or suggestive of the platelets of the present invention. Moreover, there is no disclosure or suggestion in Warren that platelet technology is used to fabricate the disclosed structure. Therefore, reconsideration and withdrawal of this ground of rejection are respectfully requested.

Regarding claims 2, 3, 5 and 6, the Examiner points out that the Huniu patent discloses well known materials for making gas injectors of gain generators, including inconel, nickel, stainless steel and copper. Applicant concedes that, if independent claims 1 and 4 were not patentable, the specific choice of platelet materials would probably not amount to a patentable invention. However, it is Applicant's contention that claims 1 and 4 do define patentable subject matter, as discussed above, and that claims 2, 3, 5 and 6 should, therefore, also be allowable as dependent claims.

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In view of the foregoing, reconsideration and withdrawal of the rejections are respectfully requested, along with formal indication of allowability claims 1-6.

Respectfully submitted,

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